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# A SYNOPTIC CATALOG OF THE MOSQUITOES OF THE WORLD, SUPPLEMENT III

(DIPTERA: CULICIDAE)1

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This paper is the third supplement to the Synoptic Catalog of the Mosquitoes of the World by Stone, Knight, and Starcke (1959), the second supplement having appeared in Vol. 65 (1963), No. 2, pp. 117–140 of the Proceedings. The introductory remarks as to format and coverage in Supplement II apply to this supplement also. One new name of the genus-group and 104 new names of the species group are listed. I am particularly indebted to T. H. G. Aitken, M. Delfinado, B. de Meillon, J. C. Hitchcock, Jr., C. L. Hogue, Z. Liepa, J. P. Macnamara, P. F. Mattingly, J. A. Reid, J. E. Scanlon, H. Sollers-Riedel, and T. J. Zavortink for pertinent information.

#### Introduction

Page

1. With the additions in this supplement and taxonomic changes, the number of valid genera and subgenera stands at 119, the number of valid species becomes 2,680, and the total number of names of the species-group 4,319.

# Systematic Arrangement

6. The genus *Mansonia* (see p. 101) has been restricted to the two subgenera *Mansonia* and *Mansonioides*, and *Coquillettidia* raised to generic rank with *Rhynchotaenia* as a subgenus of it. *Kompia* has been restored to subgeneric status in the genus *Aedes*.

# Catalog of the Family Culicidae

9. Taxonomic Anatomy.—1963b, Reid, 32-38 (pupal trumpet).
General Taxonomy.—1966, Dodge, 337-393 (1st stage larvae).
Australasian Region.—1966, Steffan, 179-237 (checklist, Papuan subregion).

Nearctic Region.—1963, Dodge, 796-813 (larvae; eastern North America).

Neotropical Region.—1961, Fauran, 2-60 (catalog, French Guiana); 1962, García and Ronderos, 105-212 (Anophelini, Argentina).

Oriental Region.—1966, Delfinado, 1-252 (Culicini, Philippines).

<sup>&</sup>lt;sup>1</sup> Reprints are for sale by the Thomas Say Foundation, Entomological Society of America, 4603 Calvert Road, College Park, Maryland 20740.

#### Genus BIRONELLA Theobald Subgenus BIRONELLA Theobald

10. **bironelli** (Christophers).—Transfer to p. 11 as synonym of *gracilis* Theobald.

gracilis Theobald.—Transfer to p. 11 as valid name.

11. **confusa** Bonne-Wepster.—Slooff, 1963, 138 ( \$\delta\*, \varphi, P\*, L\*). **gracilis** (Theobald).—I.C.Z.N., 1965, 164 (Validation under Plenary Powers).

bironelli (Christophers), ibid. (Placed on list of rejected and invalid specific names).

# Genus ANOPHELES Meigen

Important references: 1962, Service, 120-158 (W. Africa, keys); 1963, Quy, 26-34 (keys, Vietnam); 1963, various authors in Russell, West, Manwell, and MacDonald, 641-701 (keys).

# Subgenus ANOPHELES Meigen

13. Important reference: 1965, Reid, 106-125 (key, aitkenii group). acaci Baisas.—Philippines, Borneo. Reid, 1965, 115 (L\*; syn.). borneensis McArthur.

aitkenii James.—Philippines. Reid, 1965, 107 (♂\*, ♀, P, L\*, E; syn.).

pallida Ludlow.

fragilis Theobald.—Transfer to p. 18 as valid species.

ssp. **treacherii** Leicester.—Transfer to p. 18 as synonym of *fragilis* Theobald.

ssp. **bengalensis** Puri.—Change volume number from 18 to 17; transfer to p. 16 as valid species.

14. pallida Ludlow.—Transfer to p. 13 as synonym of aitkenii s. str. var. borneensis MacArthur.—Transfer to p. 13 as synonym of acaci Baisas.

ssp. stantoni Puri.—Transfer to p. 18 as synonym of *fragilis* Theobald; change BM to NE.

var. **djajasanensi**s (Brug).—Change to *djajasanensis* (Brug). See Reid reference under ssp. *interruptus* (syn.).

ssp. interruptus Puri.—Malaya. Reid, 1963a, 111 (taxonomy); change ssp. to var.

annulipalpis Lynch Arribálzaga.—García and Casal, 1964 (1965). Rev. Soc. ent. Argentina 27: 5 (P\*).

 asiaticus (Leicester).—Delete parentheses; insert as original citation "1903, J. trop. Med. 6: 291 (A); delete Lophoscelomyia.

16. bengalensis Puri.—Pakistan (Bengal), India (Assam), Burma, Thailand, Indo China, Philippines, S. China, Taiwan. Reid, 1965, 113 ( & \*, \$\rightarrow\$, P\*, L\*; to sp. status).
brevipalpus Roper.—Change "Moluccas" to "Bangka Island."

brevipalpus Roper.—Change "Moluccas" to "Bangka Island." petragnani Del Vecchio.—Transfer to p. 25 as valid species; insert "; as var." after "E\*,"

missiroli Del Vecchio.—Insert "; as var." after "E\*".

17. **collessi** Reid.—Malaya, Borneo.

1963a. Ann. trop. Med. Parasit. 57: 103 ( & \*, ♀ \*, P, L\*, E\*). Type-loc: Ulu Gombak near Kuala Lumpur, Selangor, Malaya (BM).

var. **ziemanni** Grünberg.—Insert "; as sp." after "♀."

18. **fragilis** Theobald.—Malaya, Indonesia e. to Celebes and Borneo, Philippines. Reid, 1965, 109 (♂\*, ♀, P\*, L\*; syn.).

treacherii Leicester.

stantoni Puri.

19. var. **formosus** Ludlow.—Insert "; as sp." after "♀."

var. simlensis (James).—Insert "; as sp." after "Patagiamyia."

var. **oedjalikalahensis** Nainggolan.—Change to **oedjalikalah**; insert in Bonne-Wepster and Swellengrebel after "L\*," "; as *oedjalikalahensis*."

var. **udjalikalah** Waktoedi.—Delete, merely a variant spelling of above.

- 20. **insulaeforum** (Swellengrebel and Swellengrebel de Graaf).—Burma, Thailand, Taiwan. Delete "? Japan, ? New Guinea, ? Australia." Reid, 1965, 119 ( & \*, \, \, \, P\*, L\*).
- 21. lesteri Baisas and Hu.—Japan, China. letifer Sandosham.—Thailand.

22. ssp. japonicus Yamada.—Insert "; as sp." after "♀\*" in first line.

24. **noniae** Reid.—Malaya.

1963a. Ann. trop. Med. Parasit. 57: 108 (♂, ♀\*, P\*, L\*). Typeloc: Ulu Langat, Selangor, Malaya (BM).

pursati Laveran.—Transfer to p. 27 as valid sp.

palmatus Rodenwaldt.—Delete "?" before Malaya. Reid, 1965, 117 (L\*).

25. **petragnani** Del Vecchio.—Mediterranean Region. Coluzzi, 1962, 1025 (resurrected from synonymy).

26. ssp. franciscanus McCracken.—Change "SU" to "LACM".

willardi Vargas.—Delete "Ciudad Juárez." stonei Vargas.—Insert "and USNM" after "ISET."

annulimanus Van der Wulp.—Change "North America" to "Wisconsin."

pursati Laveran.—Indochina, Thailand, Malaya. Reid, 1963a, 98 (3\*, ♀\*, P\*, L\*; resurrected from synonymy).

28. roperi Reid.—Assam.

29. sintonoides Ho.—Malaya, Thailand.

stricklandi Reid.—Malaya.

1965. Ann. trop. Med. Parasit. 59: 121 (♂\*, ♀, P\*, L\*). Typeloc: Johore, Malaya (BM).

tasmaniensis Dobrotworsky.—Tasmania, Australia.

1966. Proc. Linn. Soc. N.S.W. 91: 130 (♂\*, ♀\*, P\*, L\*, E\*). Type-loc: Birralee, Tasmania (CSIR).

tibiamaculatus (Neiva).—Argentina. tigertti Scanlon and Peyton.—Thailand.

1967. Proc. ent. Soc. Wash. 69: 19 (&\*, ♀, P\*, L\*). Type-loc: Ban Bu Phram, Prachinburi Province, Thailand (USNM).

30. whartoni Reid.—Malaya.

1963a. Ann. trop. Med. Parasit. 57: 106 (♂, ♀\*, P, L, E). Typeloc: Singgora, Maran, Pahang, Malaya (BM).

### Subgenus NYSSORHYNCHUS Blanchard

albitarsis Lynch Arribálzaga.—García and Casal, 1964 (1965). Rev. Soc. ent. Argentina 27: 6 (P\*).

# Subgenus KERTESZIA Theobald

35. bambusicolus Komp.—Change to bambusicola.

36. hylephilus Dyar and Knab.—Delete "Manoa, Orinoco River, Venezuela; Guayaquil, Ecuador and." Belkin, Schick and Heinemann, 1965, 44 (lectotype).

# Subgenus CELLIA Theobald

38. **apoci** Marsh.—Arab, 1963, 73 (P\*).

39. **brohieri** Edwards.—Transfer, with synonym, to p. 44 as variety of hancocki Edwards.

40. cavernicolus Abonnenc.—Change to cavernicola.

41. **cydippi**s De Meillon.—Lips, 1962, 108 (to sp. status).

punjabensis James.—Insert "; as var." after "Myzomyia."

melanocosta Newstead and Carter.—Insert "; as var." after Pyretophorus."

domicolus Edwards.—Change to domicola; transfer to p. 46 as variety of *longipalpis* (Theobald).

wardi Leeson and Theodor.—Insert "; as var." after "L\*."

42. **errabundus** (Swellengrebel).—Transfer to p. 32 as synonym of *darlingi* Root. Reid and Bonne-Wepster, 1966, 190 (suppression proposed).

43. subumbrosa Theobald.—Change to subumbrosus, delete Myzomyia, and change reference to Mem. Lpool Sch. trop. Med. 10 (App.): 4.

gambiae Giles.—Coluzzi, 1964, 197-232 (taxonomy).

merus Dönitz.—Transfer to p. 48 as valid species.

litoralis Halcrow.—Transfer to p. 48 as synonym of merus Dönitz.

44. var. melas (Theobald).—Delete *Pyretophorus* and parentheses around Theobald. Change reference to Mem. Lpool Sch. trop. Med. 10(App.): 2. Place Bathurst in []. Transfer to p. 48 as valid species.

grenieri Grjebine.—Madagascar.

1964. Bull. Soc. Path. exot. 57: 38 (L\*). Type-loc: Ampandro-atraka, Anosibé Distr., Madagascar (IRSM).

hancocki Edwards.

var. brohieri Edwards.—Adam, Hamon, Rickenbach and Lips,

1956, 756 (to var. status).

45. **indefinitus** (Ludlow).—Malaya, Philippines, Indochina, China, Taiwan, Mariana Islands. Reid, 1966, 327 (to sp. status; syn.).

malayensis Hacker.

**jamesii** Theobald.—Malaya.

46. **longipalpis** (Theobald).

var. domicola Edwards.—Adam, Bruce-Chwatt, and Hamon, 1956, 107 (to var. status).

47. ssp. willmori (James).—Change to willmorei, here emended.

48. var. **pitchfordi** (Giles).—Insert "; as ssp." after "*Pyretophorus*." **melas** (Theobald).—Coluzzi, 1964, 275 (to sp. status).

meras (Theobald).—Coluzzi, 1964, 275 (to sp. status). merus Dönitz.—Coluzzi, 1964, 225 (to sp. status; syn.).

litoralis Halcrow.

tangensis Kuhlow, 1962, Ztschr. f. Tropenmed. u. Parasit. 13: 448 (♂,♀). Type-loc: Tanga, Tanganyika (BNI).

49. ssp. flavirostris (Ludlow).—Delete "f." after "Myzomyia" and insert "; as sp."

52. ssp. rupicolus Lewis.—Change to rupicola.

55. var. **indefinitus** (Ludlow).—Transfer to p. 45 as valid species with var. *malayensis* Hacker as synonym.

var. **cydippis** De Meillon.—Transfer with synonym to p. 41 as valid species.

subpictus Grassi.

var. vadakadiensis Doraisamy.—India.

1963. Bull. Ent. (Madras) 4: 42 (L\*). Type-loc: Near Vadakadu, Rameswaram Island, Madras, India (MSI).

56. swahilicus Gillies.—Kenya, Tanzania.

1964. Proc. R. ent. Soc. Lond. (B) 33: 67 (δ\*, ♀\*, P, L\*).

Type-loc: Goshi, Molindi Distr., Kenya (BM).

var. **orientalis** Swellengrebel and Swellengrebel de Graaf.—Insert "Neomyzomyia" before "punctulata."

57. **theobaldi** Giles.—Change original reference to "1901. Ent. mon. Mag.

37: 198." 58. **varuna** Iyengar.—Change IM to LU.

# Genus TOXORHYNCHITES Theobald

59. *Important reference:* 1962, Lima, Guitton, and Ferreira, 225-252 (*Ankylorhynchus* and *Lynchiella*, revision, key).

### Subgenus ANKYLORHYNCHUS Lutz

catharinensis (Lima, Guitton, and Ferreira).—Brazil.

1962. Mem. Inst. Osw. Cruz 60: 230 ( & \*, &, P\*, L\*; Ankylorhynchus). Type-loc: Not given, but probably Santa Catarina, Brazil (IOC).

#### Subgenus LYNCHIELLA Lahille

bambusicolus (Lutz and Neiva).—Change to bambusicola.

mara Anduze.—Lima, Guitton, and Ferreira 1962, 243 (syn. suggested).

guianensis Bonne-Wepster and Bonne.—Insert "; as ssp." after "Mega-rhinus."

60. ssp. septentrionalis (Dyar and Knab).—Dodge, 1964, 46-53 (L\*).

61. mara Anduze.—Transfer to p. 59 as synonym of bambusicola.

#### Subgenus TOXORHYNCHITES Theobald

62. **aurifluus** (Edwards).—Lien, 1965, 9 ( ↑, ♀, P\*, L\*). ssp. **conradti** Grünberg.—Corbet, 1963, 9 ( L\*, P\*, E).

63. **kaimosi** (Someren).—Corbet, 1963, 11 (P\*).

64. manicatus (Edwards).—Lien, 1965, 2 (♂\*, ♀\*, P\*, L\*).

# **Genus TRIPTEROIDES Giles**

65. Important reference: 1963b, Peters, 89-100 (New Guinea, key P).

#### Subgenus TRIPTEROIDES Giles

68. **elegans** Brug.—Peters, 1963b, 89 (P\*, L\*).

lorengaui Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 67 (&\*, \(\hat{\phi}, P^\*, L^\*\)). Type-loc: Lorengau River, Manus Island, New Guinea (CSIR).

nissanensis Lee.—Peters, 1963a, 70 (P\*). novohanoverae Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 63 ( &\*, \, \varphi, \, \text{L\*}). Type-loc: Noipuas, New Hanover, New Guinea (CSIR).

71. szechwanensis Hsu.—China.

1964. Acta ent. Sinica 13: 298 (&\*, L\*). Type-loc: Chengtu, Szechwan, China (SMC).

### Subgenus RACHIONOTOMYIA Theobald

72. marksae Dobrotworsky.—Australia.

1965. Mosq. of Victoria :58 (♂\*, ♀, L\*). Type-loc: Cabbage Tree Creek, Victoria, Australia (NMM).

perplexus Peters.—New Guinea. 1963. Proc. R. ent. Soc. Lond. (B) 32: 91 (♀, P\*). Type-loc: Maprik, Sepik District, New Guinea (CSIR).

#### Genus TRICHOPROSOPON Theobald Subgenus TRICHOPROSOPON Theobald

73. var. mogilasium (Dyar and Knab).—Insert "; as sp." after "Joblotia." 74-77. Running Heads. Change "TRICHOPOSOPON" to "TRICHO-PROSOPON."

# Subgenus SHANNONIANA Lane and Cerqueira

74. fluviatilis (Theobald).—Change to fluviatile.

# Subgenus RUNCHOMYIA Theobald

76. **cotopaxensis** Levi Castillo.—Change to **cotopaxense**. edwardsianum Lane and Cerqueira.—Cerqueira, 1961, 460 (3\*, 9, P\*, L\*).

77. **lunatum** (Theobald).—Delete "Argentina." paranensis Brèthes.—Argentina. García and Casal, 1965, 14 (3\*, resurrected from syn.); place after pallidiventer.

#### Genus WYEOMYIA Theobald Subgenus WYEOMYIA Theobald

79. *culebrae* Dyar.—Change "1926" to "1923."

80. labesba Howard, Dyar and Knab.—Change "Ancon" to "Tabernilla."

# Subgenus DENDROMYIA Theobald

84. belkini Casal and García.—Argentina. 1966. Physis 26: 155 ( ♂ \*, ♀ \*, L \*, P \*). Type-loc: Igu, Misiones, Argentina (INM).

#### Genus PHONIOMYIA Theobald

89. lassalli (Bonne-Wepster and Bonne).—Change "LU" to "USNM." Lectotype here selected bears labels: Trinidad, W.I./F.W. Urich Collector/B12-6/See slide No. 364/ & of trinidadensis D. K. ident. 1906; terminalia on slide 364.

#### Genus LIMATUS Theobald

90. Simondella.—Change "Lavaran" to "Laveran."

# Genus SABETHES Robineau-Desvoidy Subgenus SABETHES Robineau-Desvoidy

91. kappleri Bonne.—Change "LU" to "NE."

#### Subgenus SABETHOIDES Theobald

93. rangeli Surcouf and Gonzales-Rincones.—Change "Sabethoides" to "Sabethoides."

#### **Genus TOPOMYIA** Leicester

95. aureoventer Theobald.—Change "BM" to "IM"; only slide of wing and leg in BM.

# Genus FICALBIA Theobald Subgenus RAVENALITES Doueet

100. deguzmanae Mattingly.—Delfinado, 1966, 20 (♂\*, ♀, P\*, L\*).

#### Genus MANSONIA Blanchard

101. **Genus MANSONIA Blanchard.**—Transfer with following line to p. 104 preceding **Subgenus MANSONIOIDES**.

# Genus COQUILLETTIDIA Dyar

Insert Genus COQUILLETTIDIA before Subgenus COQUIL-LETTIDIA.

Important references: 1962, Wharton, 1-114 (Malaya); 1962 (1963), Ronderos and Bachmann, 48-51 (to generic status).

# Subgenus COQUILLETTIDIA Dyar

crassipes (Van der Wulp).—Wharton, 1962, 6 ( &\*, ♀, P\*, L\*, E). 102. giblini (Taylor).—Delete "Australia, Philippines, Formosa, Malaya, Thailand, Burma."

nigrosignatus Edwards.—Transfer to p. 103 as valid sp.

hodgkini (Wharton).—Malaya, Indonesia.

1962. Inst. med. Res. Malaya, Bull. 11: 12 (ô\*, ♀\*; Mansonia).

Type-loc: Lamir (Pekan), Pahang, Malaya (BM).

103. **nigrosignata** (Edwards).—Malaya, Indonesia, Philippines. Wharton, 1962, 7 (♂\*, ♀\*, L\*, E; resurrected from synonymy). testaceus Van der Wulp.—Delete "[?] United States."

104. samoaensis Stone.—Samoa.

1966. Proc. ent. Soc. Wash. 68: 331 ( & \*, \$\gamma ). Type-loc: Tabalogi Ridge, Tau Island, Manua Group, Eastern Samoa (USNM).

### Subgenus RHYNCHOTAENIA Brèthes

Insert Subgenus RHYNCHOTAENIA, its synonym, and all its species to follow species of Subgenus COQUILLET-TIDIA.

# **Genus MANSONIA Blanehard**

Insert Genus MANSONIA Blanchard. Important references: 1962, Wharton, 1-114 (Malaya); 1962 (1963), Ronderos and Bachmann, 46-48.

# Subgenus MANSONIOIDES Theobald

105. annulata Leicester.—Celebes. Wharton, 1962, 15 (  $\delta$  \*,  $\circ$  \*, P\*, L\*, E ).

annulifera (Theobald).—Delfinado, 1966, 23 ( $\delta^*$ ,  $\circ^*$ ). bonneae Edwards.—Wharton, 1962, 17 ( $\delta^*$ ,  $\circ^*$ ,  $\circ^*$ ,  $L^*$ ,  $L^*$ ,  $L^*$ ). dives (Schiner).—Wharton, 1962, 20 ( $\delta^*$ ,  $\circ^*$ ,  $L^*$ ,  $L^*$ ,  $L^*$ ).

papuensis (Taylor).—Change "201" to "200" and "Melanoconion" to "Taeniorhynchus."

# Subgenus MANSONIA Blanchard

106. Important reference: 1963, Ronderos and Bachmann, 57-65 (keys).

pseudotitillans (Theobald).—Ronderos and Bachmann, 1963, 61

(\$\delta^\*, \quad \tip ^\*, \P^\*, \L^\*).

titillans (Walker).—Ronderos and Bachmann, 1963, 61 (\$\delta^\*, \P^\*, \L^\*, \F\*)

107. Transfer Subgenus RHYNCHOTAENIA, its synonyms, and all its species to p. 104 as subgenus of COQUILLETTIDIA.

# Subgenus Uncertain

108. aurata Dobrotworsky.—Australia.

1962. Proc. Linn. Soc. N.S.W. 87: 295 ( $\mathfrak{P}^*$ ). Type-loc: Cabbage Tree Creek, Victoria, Australia (NMM).

variegata Dobrotworsky.—Australia.

1962. Proc. Linn. Soc. N.S.W. 87: 293 (ô\*, ♀\*). Type-loc: Cann River, Victoria, Australia (NMM).

#### Genus URANOTAENIA Lynch Arribálzaga

albescens Taylor.—Peters, 1964, 27 (A, P\*, L). Delete Penn 1949b reference.

109. albosternopleura Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 203 ( $\delta$ ,  $\mathfrak{P}^*$ ). Type-loc: Maprik, Sepik Distr., New Guinea (CSIR).

amiensis Peters.—New Guinea, Papua.

1963. Proc. R. ent. Soc. Lond. (B) 32: 207 (\$\delta\*, \$\sigma\*\*). Type-loc: Ami, 10 miles nw. of Maprik, Sepik Distr., New Guinea (CSIR). annandalei Barraud.—Philippines. Delfinado, 1966, 39 (\$\delta\*, \$\sigma\$, P\*, L\*).

arguellesi Baisas.—Delfinado, 1966, 40 ( & \*, \, \varphi, \, P\*, \, L\*). argyrotarsis Leicester.—Peters, 1964, 25 ( & \*, \, \varphi, \, P, \, L).

110. benoiti Wolfs.—Congo.

1964, in Benoit, Mus. Roy. Afr. Centr. Ann., Sci. Zool. 132: 309 (L\*). Type-loc: Mwendua River, Kasongo, Congo (CMT).

bertii Cova García and Rausseo.—Venezuela.

1964. Rev. Sanid. Asist. soc. 29: 221 (  $\delta$  \*,  $\, \, \, \, \, \, \, \, \, \, \, \, \, \, \,$  , P\*, L\*). Type-loc: Cumbre de Choroni, Aragua, Venezuela (DERM).

bimaculata Leicester.—Delete Philippines.

111. **cavernicola** Mattingly.—Vattier and Adam, 1962 (1963), 911 ( &\*, P\*, L\*).

112. clara Dyar and Shannon.—Delfinado, 1966, 42 ( & \*, P\*, L\*).

113. hirsutifemora Peters.—Papua.

1964. Proc. Roy. ent. Soc. Lond. (B) 33: 21 ( $\delta^*$ ,  $\circ^*$ ). Type-loc: Port Moresby, Central District, Papua (CSIR).

115. **ludlowae** Dyar and Shannon.—Delfinado, 1966, 47 (\$\delta\$, \$\mathbb{L}\$, \$\text{L}\$; syn.). reyi Baisas.

maculipleura Leicester.—Wattal and Kalra, 1965, 312 (&\*). mendiolai Baisas.—Delfinado, 1966, 48 (&\*, \, \text{\$\circ}, \, P\*, L\*).

116. moresbyensis Peters.—Papua.

1963. Proc. R. ent. Soc. Lond. (B) 32: 204 (3\*). Type-loc: Port Moresby, Central Distr., Papua (CSIR).

nivea Leicester.—Delfinado, 1966, 50 ( $\delta^*$ ,  $\circ$ ,  $L^*$ ).

117. **novaguinensis** Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 141 ( & \*, \, \, \, P\*, L). Typeloc: Ami, 10 miles nw. of Maprik, Sepik District, New Guinea (CSIR).

ssp. alticola Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 142 ( &, &). Typeloc: Goroka, Eastern Highlands District, New Guinea (CSIR).

obscura Edwards.—Third line, change "Edwards, 1928" to "Edwards and Given, 1928."

118. paralateralis Peters.—New Guinea.

1964. Proc. R. ent. Soc. Lond. (B) 33: 19 ( $\delta^*$ ,  $\circ$ ). Type-loc: Kavieng, New Ireland District, New Guinea (CSIR).

paranovaguinensis Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 135 (♂\*, P\*, L\*). Typeloc: Maprik, Sepik District, New Guinea (CSIR).

philippinensis Delfinado.—Philippines.

1966. J. med. Ent. 3: 36 (ô\*, \$\partial P, P\*, L\*). Type-loc: San Jose, Mindoro, Philippines (USNM).

reyi Baisas.—Transfer to p. 115 as synonym of *ludlowae* Dyar and Shannon.

rossi Delfinado.—Philippines.

1966. J. med. Ent. 3: 36 (  $\delta$  \*,  $\, \circ$  ). Type-loc: San Jose, Mindoro, Philippines (USNM).

119. **testacea** Theobald.—Delfinado, 1966, 53 ( & \*, ♀, P\*, L\*).

120. **tubanguii** Baisas.—Delfinado, 1966, 55 (♂\*, ♀, P\*, L\*).

#### Genus HODGESIA Theobald

121. malayi Leicester.—Delfinado, 1966, 58 ( & \*, P\*, L\*).

# Genus ORTHOPODOMYIA Theobald

122. Thomasina Newstead and Carter.—Change "Newstead and Carter" to "Newstead and Thomas" after Mansonia longipalpis. nigritarsis Leicester.—Change "(NE)" to "(BM)."

123. *albipes* Giles.—Delete entirely. Giles was not treating a Philippine species.

nkolbissonensis Rickenbach and Hamon.—Cameroon.

1966 (1965). Bull. Soc. Path. exot. 58: 1112 ( $\delta^*$ ,  $\circ^*$ ). Typeloc: Nkolbisson, 8 km from Yaounde, S. Cameroon (IERT).

#### **Genus AEDEOMYIA Theobald**

124. **catasticta** Knab.—Delfinado, 1966, 72 ( ô, ♀, P\*, L\*).

#### Genus PSOROPHORA Robineau-Desvoidy Subgenus PSOROPHORA Robineau-Desvoidy

125. ciliata (Fabricius).—Delete West Indies. Guedes et al., 1965, 15 ( ♂ \*, ♀ \* ).

cilipes (Fabricius).—Guedes et al., 1965, 15, 16 ( $\delta^*$ ,  $\circ^*$ ).

holmbergii (Lynch Ariibálzaga).—Guedes et al., 1965, 16 (♀\*). lineata (Humboldt).—Delete Argentina, French Guiana, Brazil, Bolivia.

saeva Dyar and Knab.—Transfer below as valid species with genumaculata as synonym.

pallescens Edwards.—Guedes et al., 1965, 18 ( $\circ$ \*). saeva Dyar and Knab.—Argentina, Brazil, Surinam, Trinidad, Venezuela, ?Bolivia, ?French Guiana. Stone, 1967 (in press) (resurrected from synonymy).

# Subgenus JANTHINOSOMA Lynch Arribálzaga

Important reference: 1964, Guedes and Souza, 471-486 (key). albigenu Peryassú.—Argentina, Bolivia, Brazil, Paraguay, Peru, Venezuela (northern limits of distribution uncertain). Guedes and Souza, 1964, 474 (ô\*, ♀\*, P\*, L\*; resurrected from synonymy).

paraguayensis Strickland.

bruchi Petrocchi.

albipes (Theobald).—Guedes and Souza, 1964, 476 ( & \*, P\*, L\*).

127. circumflava Cerqueira.—Peru. Guedes et al., 1965, 18 (P\*). cyanescens (Coquillett).—Guedes et al., 1965, 18 ( & \*, ♀ \*). discrucians (Walker).—Guedes et al., 1965, 19 (8\*

ferox (Humboldt).—Guedes et al., 1965, 19 (♂\*, ♀\*).
pazosi Pazos.—Insert before "Cuba," "Vuelta Abajo (Las Villas)."

fiebrigi Edwards.—Paraguay, Bolivia. Souza and Guedes, 1962, 249 (♂\*, ♀\*; resurrected from synonymy).

forceps Cerqueira.—Guedes et al., 1965, 20 (ô\*, ♀\*).

lanei Shannon and Cerqueira.—Guedes et al., 1965, 18 ( $\circ$ \*). lutzii (Theobald).—Change "Janthinosoma" to "Janthinosoma." Guedes et al., 1965, 21 ( & \*, ♀ \*).

varipes (Coquillett).—Distribution and identity uncertain. Possibly Central American varipes is different from that in United States; most South American "varipes" is albigenu.

129. albigenu Peryassú.—Transfer to p. 128 as valid species with paraguayensis and bruchi as synonyms.

#### Subgenus GRABHAMIA Theobald

cingulata (Fabricius).—Guedes et al., 1965, 21, 22 ( $\delta$ \*,  $\circ$ \*). neoapicalis Theobald.—Insert "; Culex" at end of second line, within parenthesis.

confinnis (Lynch Arribálzaga).—Guedes et al., 1965, 23 (♂\*, ♀\*).

dimidiata Cerqueira.—Guedes et al., 1965, 23 ( &\*, 9\*). discolor (Coquillett).—Change date from "1930" to "1903." paulli Paterson and Shannon.—Guedes et al., 1965, 18 (♀\*).

# 131. varinervis Edwards.—Guedes et al., 1965, 24 (♂\*, ♀\*).

# Genus ERETMAPODITES Theobald

135. tonsus Edwards.—Someren and Hamon, 1964, 82-84 (P\*, L\*)

#### Genus AEDES Meigen Subgenus OCHLEROTATUS Lynch Arribálzaga

137. Aedes, subgenus Kompia Aitken.—Transfer to p. 157 before Subgenus FINLAYA as valid subgenus.

138. albifasciatus (Macquart).—Ronderos and García 1962 (1963)a, 35 (P\*).

angustivittatus Dyar and Knab.—Ronderos and García, 1962 (1963)a, 37 (P\*).

meprai Martínez and Prosen.—Ronderos and García, 1962 (1963)b, 38 (syn.).

antipodeus (Edwards).—Marks and Nye, 1963, 50 (&\*, \( \hat{\phi} , P\*, L\* \).

139. praeteritus Segúy.—Transfer to p. 150 as synonym of pulchritarsis. africanus Neveu-Lamaire.—Change "taeniorhynchus" to "Taeniorhyn-141. chus.'

142. borealis Ludlow.—Change "Culex" to "Culex."

communis (De Geer).

143. ssp. nevadensis Chapman and Barr.—Nevada. 1964. Mosq. News 24: 444 (&\*, \(\dagger, P\*, L\). Type loc: Lamoille Canyon, Elko Co., Utah, United States (USNM).

patersoni Shannon and Del Ponte.—Transfer to p. 150 as valid sp.

145. **explorator** Marks.—Australia. 1964. Pap. Dep. Ent. Univ. Qd. 2: 60 ( ♀\*, L\*). Type-loc: Mt Olga, 300 mi. sw. of Alice Springs, Northern Territory, Australia

146. **fryeri** (Theobald).—Mattingly, 1963, 165 (L\*).

147. imperfectus Dobrotworsky.—Australia.

1962. Proc. Linn. Soc. N.S.W. 87: 296 ( 3 \*, ♀, P\*, L\*). Typeloc: Woori Yallock, Victoria, Australia (USNM).

148. lasaensis Meng.—China.

1962. Acta ent. Sinica 11: 159 (3\*, L\*). Type-loc: Lasa [Tibet, Chinal (LU).

linesi Marks.—Australia.

1964. Pap. Dep. Ent. Univ. Qd. 2: 63 (♀). Type-loc: Robe, South Australia, Australia (CSIR).

meprai Martínez and Prosen.—Transfer to p. 138 as synonym of angustivittatus.

149. **mombasaensis** Mattingly.—Kenya.

1963. Proc. R. ent. Soc. Lond. (B) 32: 165 (ô, ♀, L\*). Typeloc: Mombasa, Kenya (BM).

nigrithorax (Macquart).—Dobrotworsky, 1966, 135 (♀\*, L).

patersoni Shannon and Del Ponte.—Ronderos and García, 1962 150. (1963) a, 35 (P); (resurrected from syn.).

phaecasiatus Marks.—Australia. 1964. Pap. Dep. Ent. Univ. Qd. 2: 64 (\$\varphi\$). Type-loc: 5 miles from Maningrida, Arnhem Land, Northern Territory, Australia (UQ).

pulchritarsis (Rondani).

praeteritus Segúy.—Coluzzi, in litt. (syn.).

purpureipes Aitken.—Transfer to p. 157 under Subgenus KOMPIA. luteovittata Theobald.—Insert after "Culex" "nemorosus var." 151.

153. sapiens Marks.—Australia.

1964. Pap. Dep. Ent. Univ. Qd. 2: 66 (3\*, ♀\*). Type-loc: North Bourke, New South Wales, Australia (CSIR). mathisi Neveu-Lemaire.—Change "French Guiana" to "Brazil."

154. simanini Gutsevich.—U.S.S.R. (Uzbekistan). 1966. Zool. Zhur. 45: 457 ( ♂ \*, ♀ ). Type-loc: Kokand, Fergana Valley, Uzbekistan (ZIL).

dorso-vittatus Villeneuve.—Insert after "Culex", "nemorosus var."

155. **subalbirostris** Klein and Marks.—Marks and Nye, 1963, 56 ( $\delta$ \*,  $\varphi$ \*, P\*, L\*).

157. Insert Subgenus KOMPIA Aitken. Mattingly, 1961, 16 (returned to subgeneric status).
purpureipes Aitken.—Insert from p. 151 under Subgenus KOMPIA.

# Subgenus FINLAYA Theobald

165. **kompi** Vargas and Downs.—Arizona.

167. mjoebergi (Edwards).—Change to "mjöbergi."

168. occidentalis (Skuse).

ssp. milsoni (Taylor).—Dobrotworsky, 1962, 301 (as sp.; P\*, L\*).

170. shintiensis.—Change "Lein" to "Lien."

171. sorsogonensis Bañez and Jueco.—Philippines.

1966. Acta med. Philippina 2(4): 195 ( $\delta^*$ ,  $\mathcal{P}^*$ ,  $L^*$ ). Type-loc: Sorsogon Province, [Luzon] (IHP).

stanleyi Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 1 (ℰ, ♀, P\*, L\*). Typeloc: Minj, Western Highlands District, New Guinea (CSIR).

subbasalis Dobrotworsky.—Australia.

1962. Proc. Linn. Soc. N.S.W. 87: 298 ( & \*, ♀, P\*, L\*). Typeloc: Ginninderra Falls, New South Wales, Australia (CSIR).

172. tutuilae Ramalingam and Belkin.—Samoa.

1965. Contr. Amer. ent. Inst. 1(4): 3 ( 3\*, 9, P\*, L\*). Type-loc: Aoloau, Tutuila, American Samoa (USNM).

#### Subgenus HOWARDINA Theobald

173. **allotecnon** Kumm, Komp and Ruiz.—Add to type-locality, "Poás Volcano."

arborealis Bonne-Wepster and Bonne.—Change "USNM" to "ITH." aurivittatus Cerqueira.—Martínez, Prosen and Carcavallo, 1964, 54  $( \hat{\sigma} * )$ .

cozumelensis Díaz Nájera.—Mexico.

1966. Rev. Invest. Salud. publ. (Mex.) 26: 334 ( & \*,  $\circ$  \*, P\*, L\*). Type-loc: San Miguel de Cozumel, Quintana Roo, Mexico (ISET).

# Subgenus CHAETOCRUIOMYIA Theobald

175. **calabyi** Marks.—Marks, 1964, 132 (♀).

elchoensis Taylor.—Marks, 1964, 134 ( & \*, ♀, P\*, L\*).

macmillani Marks.—Australia.

1964. Proc. Linn. Soc. N.S.W. 89: 138 (  $\delta$  \*,  $\,$  \$\varphi\$\*). Type-loc: N.W. Dungog, Gummi Plain, Barrington Area, New South Wales (US).

spinosipes Edwards.—Marks, 1964, 142 (9, E\*).

#### Subgenus HALAEDES Belkin

176. australis (Erichson).—New Zealand.

### Subgenus GEOSKUSEA Edwards

177. tonsus Edwards.—Mattingly, 1965, 23 ( &\*). Delete "? Celebes."

# Subgenus STEGOMYIA Theobald

180. albopictus (Skuse).—Restore New Guinea, deleted in Suppl. I. 181. arboricolus Knight and Rozeboom.—Change to arboricola.

182. bambusicolus Knight and Rozeboom.—Change to bambusicola.

Supplement II. montana Koidzumi. Change reference given to: "1918. Trans. nat. Hist. Soc. Formosa 38: 141 (\$\delta\$; 183. Stegomuja). Type-loc: Chikutoki, Kagi District, Formosa (LU).

gardnerii (Ludlow).

ssp. imitator (Leicester).—Malaya, Nepal, S. China. Mattingly, 1965, 36 (resurrected from synonymy; syn.).

christianus Dyar.

184. hensilli Farner.—Transfer to p. 187 as ssp. of scutellaris. laffooni Knight and Rozeboom.—Knight and Hull, 1951, 221 (L).

paullusi Stone and Farner.—North Borneo. 186.

187. scutellaris (Walker).—Delete Philippines. Colless, 1962, 313 ( & \*, taxon). ssp. hensilli Farner.—Delete Singapore of Suppl. I. Colless, 1962,

314 (to ssp. status).

ssp. malayensis Colless.—Singapore, Malaya, Philippines. 1962. Proc. Linn. Soc. N.S.W. 87: 314 (3\*, 9). Typeloc: Pulau Hantu, Keppel Harbor, Singapore (CSIR).

188. tabu Ramalingam and Belkin.—Tonga Islands.

1965. Contr. Amer. ent. Inst. 1(4): 1 (♂\*, ♀, P\*, L). Type-loc: Eua Island, Tonga (USNM).

usambara Mattingly.—Someren and Hamon, 1964, 80 (P\*).

vinsoni Mattingly.—Mattingly, 1963, 168 (\$\frac{\pi}{2}\$). imitator Leicester.—Transfer to p. 183 as ssp. of gardnerii. christianus Dyar.—Transfer to p. 183 as synonym of gardnerii imitator.

# Subgenus AEDIMORPHUS Theobald

190. albocephalus Theobald.—Change reference to "Mem. Lpool Sch. trop. Med. 10(App.): 4.

arabiensis (Patton).—Transfer with synonym to p. 198 as synonym of vexans (Meigen).

192. **dialloi** Hamon and Brengues.—Dahomey. 1965. Bull. Soc. Path. exot. 58: 103 ( 3 \*). Type-loc: Tchakarkou, Natitingou Prefecture, Dahomey (IERT).

ebogoensis Rickenbach and Ferrara.—Cameroon.

1966. Bull. Soc. Path. exot. 58: 26 (3\*). Type-loc: Ebogo, Cameroon (IERT).

hamoni Mattingly.—Nigeria.

1963. Proc. R. ent. Soc. Lond. (B) 32: 166 (ô\*, ♀\*). Typeloc: Akute Village, Ogun River, near Iju waterworks, S. Nigeria (BM).

194. **lottei** Hamon and Brengues.—Ivory Coast.

1965. Bull. Soc. Path. exot. 58: 101 (3\*). Type-loc: Tiassalé, Ivory Coast (IERT).

niveoscutellum (Theobald).—Delete asterisk after "3." 195. nocturnus Theobald.—Hawaii. Correction to Suppl. II. Change "125" to "195." nyounae Hamon and Adam.—Brengues and Hamon, 1965, 92 (P\*,

L\*).

196. rickenbachi Hamon and Adam.—Rickenbach and Ferrara, 1964, 972,  $(L^*, P^*).$ 

tauffliebi Rickenbach and Ferrera.—Cameroon. 198.

1965. Bull. Soc. Path. exot. 58: 24 ( &\*). Type-loc: Mbéga, Dept. Dyong and Sanaga, Cameroon (IERT).

vexans (Meigen).—Hamon et al., 1966, 373 (syn.).

arabiensis Patton.—Insert in synonymy after montcalmi. sudanensis Theobald.—Insert in synonymy after eruthrosops.

#### Subgenus NEOMELANOCONION Newstead

200. Supplement II. Le Berre and Hamon reference inadvertently left out of "Literature Cited." See that section in this Supplement. aurovenatus Worth.—Supplement I. Change type locality from "Nduma" to "Ndumu."

201. palpalis (Newstead).—Gambia.

taeniarostris (Theobald).—Bailly-Choumara, 1965 (1966), 671 (P\*,

# **Subgenus DICEROMYIA Theobald**

202. **periskelatus** (Giles).—Qutubuddin, 1945, 34 (♀).

203. whartoni Mattingly.—Malaya.

1965. Culic. Mosq. Indomalayan Area VI: 65 (6\*, P\*, L\*). Type-loc: Ulu Gombak, Malaya (BM).

# Subgenus AEDES Meigen

207. **nubicolus** Laffoon.—Change to **nubicola**.

209. uncus (Theobald).—Knight and Hull, 1951, 222 (L).

# Subgenus CANCRAEDES Edwards

210. miachaetessa Dyar and Shannon.—Change "1935" to "1925." lateralis Theobald.—Change "1919" to "1818."

# Genus ARMIGERES Theobald Subgenus ARMIGERES Theobald

212. baisasi Stone and Thurman.—Baisas 1935, 488 (3\*, ♀; as kuchingensis); Delfinado, 1966, 80 ( & \*, 9, P\*, L\*).

213. kuchingensis Edwards.—Transfer Baisas's 1935b reference to baisasi Stone and Thurman.

malayi (Theobald).—Philippines.

manalangi Baisas.—Delfinado, 1966, 86 ( & \*, \, \chi, P\*, L\*).

papuensis Peters.—New Guinea.

1963. Proc. R. ent. Soc. Lond. (B) 32: 4 (ô\*, ♀\*, P\*, L\*). Type-loc: Maprik, Sepik District, New Guinea (BM).

setifer Delfinado.—Philippines.

1966. Mem. Amer. ent. Inst. 7: 87 ( & \*, ♀ \*). Type-loc: Pinigisan, Mantalingajan, Palawan, Philippines (ZMC).

# Subgenus LEICESTERIA Theobald

214. **digitatus** Edwards.—Delfinado, 1966, 88 ( ĉ \*, ♀, P\*, L\*). flavus Leicester.—Delfinado, 1966, 89 ( &\*, \, \varphi, \, P\*, L\*).

magnus (Theobald).—Delfinado, 1966, 91 ( &\*, \, \varphi, \, P\*, L\*).

215. omissus (Edwards).—Delfinado, 1966, 92 ( &\*, \, \varphi, \, P\*, L\*).

#### Genus CULISETA Felt

218. Important references: 1963, Barr, 324-330 (key pupae, Nearctic); 1964, Maslov, Ent. Obozr. 43: 193-217 (Ent. Rev.: 97-107) (taxonomy).

#### Subgenus CULISETA Felt

alaskaensis (Ludlow).—Barr, 1963, 328 (P\*).

ssp. indica (Edwards).—India, Pakistan. Maslov, 1964, 203 (100) (to ssp. status).

annulata (Schrank).

ssp. subochrea (Edwards).—Maslov, 1964, 204 (100) (to ssp. status).

atlantica (Edwards).—Insert from p. 222.

zottae (Ungureanu).—Change from ssp. to syn. 219.

impatiens (Walker).—Barr, 1963, 329 (P).

incidens (Thomson).—Barr, 1963, 328 (P\*).

particeps (Adams).—Barr, 1963, 328 (P\*).

sinensis (Meng and Wu).—China.

1962. Acta ent. Sinica 11: 382 ( ô \*, ♀, P, L\*; *Theobaldia*).

Type-loc: China (LU).

220. subochrea (Edwards).—Transfer with its synonym to p. 218 as ssp. of annulata (Schrank).

# Subgenus CULICELLA Felt

atra Lee.—Insert from p. 222.

minnesotae Barr.—Transfer to p. 221 as ssp. of silvestris (Shingarey).

morsitans (Theobald).—Delete northern North America.

ssp. dyari (Coquillett).—Northern North America. Maslov, 1964, 209 (103) (to ssp. status).

brittoni Felt.

221. **ochroptera** (Peus).—Place as ssp. of *silvestris* (Shingarev). silvestris (Shingarev).

ssp. ochroptera (Peus).—Maslov, 1964, 209 (103) (to ssp. status).

ssp. minnesotae Barr.—Maslov, 1964, 209 (103) (to ssp. status).

ssp. amurensis Maslov.—China.

1964. Ent. Obozr. 43: 210 ( & \*, ♀, L). Type-loc: Central Amur Region, Ussuri Basin, Southern Maritime Province, Northeast China (LU).

#### Subgenus CLIMACURA Howard, Dyar and Knab

antipodea Dobrotworsky.—Australia.

1962. Proc. Linn. Soc. N.S.W. 87: 291 ( ♂ \*, ♀, P\*, L\*). Typeloc: Cann River, Victoria (NMM).

melanura (Coquillett).—Barr, 1963, 327 (P\*).

weindorferi (Edwards).—Dobrotworsky, 1966, 143 (♂\*, ♀, P\*, L\*).

# Subgenus ALLOTHEOBALDIA Brolemann

indica (Edwards).—Transfer to p. 218 as ssp. of alaskaensis (Ludlow).

# Subgenus Uncertain

atlantica (Edwards).—Transfer to p. 218 in subgenus Culiseta. atra Lee.—Transfer to p. 220 in subgenus Culicella.

#### Genus CULEX Linnaeus **Subgenus LUTZIA Theobald**

223. fuscanus Wiedemann.—Delfinado, 1966, 97 (ô\*, ♀, P\*, L\*). setulosus Doleschall.—Change "1875" to "1857." 224. bimaculata Theobald.—Insert after "♀""; as var."

fusca Theobald.—Insert after "A" "; as var."

#### Subgenus NEOCULEX Dyar

225. amaniensis Someren and Hamon.—Tanzania. 1964. J. ent. Soc. S. Afr. 27: 78 (ô\*, ♀\*). Type-loc: Amani, Tanganyika (BM).

226. **brevipalpis** (Giles).—Delfinado, 1966, 125 ( & \*, ♀, P\*, L\*).

garioui Bailly-Choumara and Rickenbach.—Cameroon. 227.

> 1966. Bull. Soc. Path. exot. 59: 144 ( &\*). Type-loc: Mbol, Yokadouma, E. Cameroon (IERT).

laplantei (Hamon, Adam and Mouchet).-Change "Eboga" to 228. "Ebogo."

nematoides Dyar and Shannon.—Insert "♀."

pseudoandreanus Bailly-Choumara.—Cameroon.

1965 (1966). Bull. Soc. Path. exot. 58: 660 (3\*). Type-loc: Ebogo, Arrondissement de Mbalmayo, 100 km. s. of Yacundé, Cameroon (IERT); Bailly-Choumara and Pajot, 1965 (1966): 665 (P\*, L\*).

229. capensis De Meillon.—Insert after "♀" "as var."

# Subgenus MOCHTHOGENES Edwards

231. chiyutoi Baisas.—Delfinado, 1966, 129 ( & \*, P, L).

culionicus Delfinado.—Philippines.

1966. Mem. Amer. ent. Inst. 7: 130 (3\*, ♀). Type-loc: San Pedro, Culion I., Palawan, Philippines (USNM).

latifoliatus Delfinado.—Philippines.

1966. Mem. Amer. ent. Inst. 7: 131 ( & \*, ♀). Type-loc: Molawin Creek, College, Laguna, Philippines (USNM).

laureli Baisas.—Philippines. Delfinado, 1966, 132 ( &\*, \, \, P\*, L\*; resurrected from synonymy).

malayi (Leicester).—Delete Philippines and remove laureli from synonymy.

shrivastavii Wattal, Kalra and Krishnan.—Andaman Islands.

1966. Bul. Ind. Soc. Mal. Com. Dis. 3: 159 (3\*). Type-loc: Ferrar Ganj, S. Andaman Islands (NCID).

232. tricontus Delfinado.—Philippines.

1966. Mem. Amer. ent. Inst. 7: 133 (3\*). Type-loc: Molawin Creek, College, Laguna, Philippines (USNM).

uncinatus Delfinado.—Philippines.

1966. Mem. Amer. ent. Înst. 7: 134 (♂\*,♀). Type-loc: Osmena, Samar (USNM).

# Subgenus LOPHOCERAOMYIA Theobald

Important reference: 1965, Colless, 216-307 (Malaya, keys).

aculeatus Colless.—Malaya.

1965. J. med. Ent. 2: 286 (♂\*, ♀, L\*). Type-loc: Bukin Tungal, Kg. Gajan Forest Reserve, Perak, Malaya (ANIC).

acutipalus Colless.—Malaya.

1965. J. med. Ent. 2: 299 (&\*, ♀, L). Type-loc: Kg. Chantek Bahru, Singapore (ANIC).

alphus Colless.—Malaya, Borneo.

1965. J. med. Ent. 2: 283 (♂\*, ♀, L\*). Type-loc: Kg-Sijankang, Selangor, Malava (ANIC).

atracus Colless.—Change "BM" to "CSIR." christiani Colless.—Change "BM" to "CSIR."

bandoengensis Brug.—Java, Malaya. Colless, 1965: 292 (♂\*, ♀, L; to sp. status).

bengalensis Barraud.—India, Malaya, Hainan I. Colless, 1965, 293 ( & \*, ♀, L\*; to sp. status).

bicornutus (Theobald).—Burma, Malaya, Botel Tobagu (nr. Formosa). Colless, 1965, 291 (3\*, L\*; resurrected from

**brevipalpus** (Theobald).—Stone, 1957, 172 (resurrected from syn.); Colless, 1965, 301 ( & \*, ♀, L).

cinctellus Edwards.—Philippines. crassicornis Colless.—Malaya.

1965. J. med. Ent. 2: 296 ( & \*). Type-loc: Ulu Gombak, Selangor Malaya (ANIC).

cubitatus Còlless.—Malaya. 1965. J. med. Ent. 2: 273 (♂\*, ♀, L). Type-loc: Mandai Road, Singapore (ANIC).

curtipalpis (Edwards).—Edwards, 1928, 279 (3\*); Colless, 1965, 301 (♂\*,♀,L).

demissus Colless.—Malaya.

1965. J. med. Ent. 2: 296 (δ\*). Type-loc: Ulu Gombak, Selangor, Malaya (ANIC).

eminentia (Leicester).—Colless, 1965, 298 ( & \*, L). 233.

brevipalpus Theobald.—Transfer to p. 232 as valid species.

eukrines Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc. Wash. 69: 11 (&\*, \paralleleft, L\*). Type-loc: Huai Bong Ti, Kanchanaburi Province, Thailand (USNM).

variata Leicester.—Change "NE" to "BM." Transfer to p. 235 as valid species.

fuscosiphonis Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc. Washington 69: 11 (♂\*, ♀, L\*). Typeloc: Muang, Phattalung Province, Thailand (USNM).

ganapathi Colless.—Malaya.

1965. J. med. Ent. 2: 294 (♂\*, ♀, L\*). Type-loc: Ulu Langat, Selangor, Malaya (ANIC).

gibbulus Delfinado.—Philippines.

1966. Mem. Amer. ent. Inst. 7: 105 (3\*). Type-loc: San Jose, Mindoro, Philippines (USNM).

**hewitti** (Edwards).—Colless, 1965, 303 ( & \*, ♀, L).

incomptus Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc. Wash. 69: 16 (ô\*, ♀). Type-loc: Doi Sutep, Chiang Mai Province, Thailand (USNM).

inculus Colless.—Malaya.

1965. J. med. Ent. 2: 280 (♂\*, ♀, L\*). Type-loc: Kampong Sireh, Selangor, Malaya (ANIC).

josephinae Baisas.—Change to josephineae and transfer to p. 234 as valid species.

234. josephineae Baisas.—Philippines. Delfinado, 1966, 106 (3\*; resurrected from synonymy).

lucaris Colless.—Malaya.

1965. J. med. Ent. 2: 299 (3\*). Type-loc: Ulu Pandan, Singapore (ANIC).

bicornuta Theobald.—Transfer to p. 232 as valid species. macdonaldi Colless.—Malaya, Philippines.

1965. J. med. Ent. 2: 276 (&\*, L\*). Type-loc: Singapore (ANIC); Delfinado, 1966, 108 (&\*, P\*, L\*).

mammilifer (Leicester).—Hainan I. Colless, 1965, 287 (3\*, 9, L\*; syn.); Delfinado, 1966, 109 ( & \*, P\*, L\*).

chiungchungensis Hsü.—1963. Acta ent. Sinica 12: 229 ( 3\*, 9, L\*). Type-loc: Chiungchungsang, Hainan Island, Kwangtung Province, China (LU).

minor (Leicester).—Colless, 1965, 289 ( ♂ \*, ♀, L\*; syn.).

*nolledoi* Baisas.

var. bengalensis Barraud.—Transfer to p. 232 as full species. var. bandoengensis Brug.—Transfer to p. 232 as full species.

**navalis** Edwards.—Malaya. Colless, 1965, 304 ( $\delta$ \*,  $\circ$ , L). niger (Leicester).—Colless, 1965, 282 ( & \*, ♀, L).

nolledoi Baisas.—Transfer to p. 234 as synonym of minor (Leicester). petersi Colless.—Change "BM" to "CSIR."

pseudornatus Colless.—Change "BM" to "CSIR." **peytoni** Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc Wash. 69: 7 ( &\*, ♀, L\*). Type-loc: Phatthalung-Trang Road, Phatthalung Province, Thailand (USNM).

**pholeter** Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc. Wash. 69: 13 (ô\*, ♀, L\*). Type-loc: Khao Mai Ha Wa, Chon Buri Province, Thailand (USNM).

reidi Colless.—Malaya, Philippines.

1965. J. med. Ent. 2: 279 (ô\*, ♀, L\*). Type-loc: West Coast Road, Singapore (ANIC).

spiculosus Bram and Rattanarithikul.—Thailand.

1967. Proc. ent. Soc. Wash. 69: 3 (♂\*, ♀, L\*). Type-loc: Doi Sam Sao, Tak Province, Thailand (USNM).

traubi Colless.—Malaya.

1965. J. med. Ent. 2: 295 (♂\*, ♀, L\*). Type-loc: Ulu Gombak, 16th mile, Selangor, Malaya (ANIC).

uniformis (Theobald).—Philippines.

variatus (Leicester).—Colless, 1965, 270 (3\*, 9, L\*; resurrected from synonymy).

whartoni Colless.—Malaya. 1965. J. med Ent. 2: 275 (♂\*, ♀, L\*). Type-loc: Singapore (ANIC).

wilfredi Colless.—Malava.

1965. J. med. Ent. 2: 297 (3\*). Type-loc: Malaya (ANIC).

# Subgenus CULICIOMYIA Theobald

238. pallidothorax Theobald.—Philippines. papuensis (Taylor).—Philippines.

ramakrishnii Wattal and Kalra.2—India.

1965. Bull. Ind. Soc. Mal. Com. Dis. 2: 309 (♂\*, ♀). Type-loc: Lachhiwala Reserve Forest, Dehra Dun, India (NICD). spathifurca (Edwards).—Delfinado, 1966, 123 (♂\*, ♀, P, L\*).

#### Subgenus THAIOMYIA Bram

239. Culex, subgenus Thaiomyia Bram, 1966, Proc. ent. Soc. Wash. 68: 73. Orthotype: Culex dispectus Bram.

dispectus Bram.—Thailand.

1966. Proc. ent. Soc. Wash. 68: 75 (♂\*, ♀, P\*, L\*). Type-loc: Doi Sam Sao, Tak Province, Thailand (USNM).

#### Subgenus CULEX Linnaeus

Important reference: 1967, Bram, 1-222 (keys, New World). Lasioconops Theobald.—Change reference to Mem. Lpool Sch. trop. Med. 10 (App.): 8.

240. abnormalis Lane.—Colombia. Bram, 1967, 20 ( & \*, ♀, L; syn.).

scutatus Rozeboom and Komp.

acharistus Root.—Argentina, Chile. Bram, 1967, 23 ( & \*, L\*).

alani Forattini.—Colombia.

1965. Entomologica Médica 2: 143 (3\*). Type-loc: Catera a Gachancipa, Colombia (USNM); Bram, 1967, 23 ( & \*).

alticola Martini.—Transfer to p. 242 as synonym of apicinus Philippi. annulirostris Skuse.—Delfinado, 1966, 139 ( & \*, \, \, L\*; syn.). palmi Baisas.

241. gambiensis Theobald.—Insert "; as var." after "(♀)."

242. apicinus Philippi.—Bolivia. Bram, 1967, 26 (♂\*, ♀, L; syn.). alticola Martini.

archegus Dyar.—Peru, Colombia, Ecuador. Bram, 1967, 28 (3\*, L;

resurrected from syn.). Place before argenteopunctatus.

articularis Philippi.—Type-loc: Casa Pangue, Llanquihue, Chile (USNM). Bram, 1967, 30 ( & \*; neotype).

243. azuayus Levi Castillo.—Transfer to p. 252 as synonym of nigripalpus Theobald.

beauperthuyi Anduze.—Transfer to p. 259 as synonym of saltanensis Dyar.

bickleyi Forattini.—Colombia.

1965. Entomologia Médica 2: 146 (3\*). Type-loc: Bosque Calderon, Bogota, Colombia (USNM); Bram, 1967, 33 (3\*).

bidens Dyar.—Argentina, Bolivia, Mexico, Venezuela. Bram, 1967. 35 ( & \*; resurrected from syn., syn.).

interfor Dyar.

<sup>&</sup>lt;sup>2</sup> Under Article 31 of the International Code of Zoological Nomenclature this name is presumably not emendable; under the old Code it would have to be changed to ramakrishnani, as the species is named after Dr. Ramakrishnan.

244. **brethesi** Dyar.—Bachmann and Casal, 1962, 78 ( &\*, P\*, L\*). **camposi** Dyar.—Colombia, Ecuador, Peru. Bram, 1967, 49 ( &\*; raised to sp. status).

cheni Ho.—China.

1963. Acta ent. Sinica 12: 368 ( & \*,  $\, \, \, \, \, \, \, \, \, \, \, \, \, \, \, \,$  Type-loc: Canton, China (CMC).

chidesteri Dyar.—Argentina. Bram, 1967, 42 ( & \*, L; syn.).

deanei Correa and Ramalho.

confusus Baisas.—Transfer to p. 251 as synonym of mimulus Edwards.

245. **coronator** Dyar and Knab.—Bram, 1967, 46 ( & \*, L; syn.).

coronator mooseri Vargas and Martinez Palacios.

ousqua Dyar.—Transfer to p. 253 as valid species. usquatus Dyar.—Transfer to p. 264 as valid species.

usquatissimus Dyar.—Transfer to p. 264 as valid species.

albertoi Anduze.—Transfer to p. 253 as synonym of ousqua Dyar.

ssp. camposi Dyar.—Transfer to p. 244 as valid species.

ssp. mooseri Vargas and Martinez Palacios.—Change to synonym.

covagarciai Forattini.—Venezuela.

1965. Entomologia Médica 2: 128 (  $\hat{\sigma}$  ). Type-loc: San Antonio de Caparo, Municipal Capitol, Venezuela (USNM); Bram, 1967, 53 (  $\hat{\sigma}$  \*, L ).

deanei Correa and Ramalho.—Transfer to p. 244 as synonym of chidesteri Dvar.

declarator Dyar and Knab.—Bram, 1967, 56 ( &\*, L; syn.). forattinii Correa and Ramalho.

246. bidens Dyar.—Transfer to p. 243 as valid species.

247. fasyi Baisas.—Change "[Davao], Mindanao" to "[Mountain], Luzon."

fernandezi Casal, García and Cavalieri.—Argentina.

1966. Physis 26: 185 (&\*, \( \rho \), P\*, L\*). Type-loc: Quebrada de Piquirenda, Salta, Argentina (INM).

forattinii Correa and Ramalho.—Transfer to p. 245 as synonym of

orattinii Correa and Ramalho.—Transfer to p. 245 as synonym of declarator Dyar and Knab.

248. gameti Bailly-Choumara.—Cameroon.

1966. Bull. Soc. Path. exot. 59: 148 ( $\delta$ \*). Type-loc: Mbol, Yokadouma, E. Cameroon (IERT).

249. habilitator Dyar and Knab.—Peru.

incognitus Baisas.—Delfinado, 1966, 145 ( ô \*, ♀, P, L\*). interfor Dyar.—Transfer to p. 243 as synonym of *bidens* Dyar.

250. **kesseli** Belkin.—Belkin, 1964, 236 ( ĉ \*, ♀, P\*).

lahillei.—Correction to Suppl. II. Change "Casals" to "Casal"; also index, p. 140.

levicastilloi Lane.—Venezuela. Bram, 1967, 74 (ô\*, L; syn.).
tejerai Cova Garcia.—1962. Rev. Sanid. Asist. Soc. 27: 312 (ô\*, \$\varphi\$, P\*, L\*). Type-loc: Near La Cumbre de Choroni, Aragua, Venezuela (DERM).

251. **mimulus** Edwards.—Delfinado, 1966, 150 (  $\hat{a}$  \*,  $\hat{\varphi}$ ; syn.).

confusus Baisas.

mollis Dyar and Knab.—Bram, 1967, 80 ( &\*, L; syn.). tisseuili Senevet.

252. **nigripalpus** Theobald.—Bram, 1967, 84 ( & \*, L; syn.). azuayus Levi-Castillo.

oswaldoi Forattini.—Brazil.

1965. Entomologia Médica 2: 167 ( &\*). Type-loc: Macaphyba, Natal, Brazil (USNM); Bram, 1967, 86 ( & \*).

253. ousqua Dvar.—Mexico to Colombia. Bram, 1967, 50 (8 \*; resurrected from syn.; syn.).

albertoi Anduze.

palmi Baisas.—Transfer to p. 241 as synonym of annulirostris Skuse.

254. ssp. quinquefasciatus Sav.—Restore to this status. trifurcatus Fabricius.—Delete "fatigans ssp.'

258.

pseudovishnui Colless.—Delfinado, 1966, 147 (P, L\*). quinquefasciatus Say.—Return to p. 254 as ssp. (see Suppl. II).

259.salinus Baisas.—Transfer to p. 260 as synonym of sitiens Wiedemann. saltanensis Dyar.—Brazil, Panama, Venezuela. Bram, 1967, 97 ( & \*, L: svn.).

beauperthuyi Anduze.

scutatus Rozeboom and Komp.—Transfer to p. 242 as synonym of abnormalis Lane.

sitiens Wiedemann.—Delfinado, 1966, 151 ( & \*, \, \, L\*; syn.). salinus Baisas.

260. spinosus Lutz.—Colombia, Venezuela.

suborientalis Baisas.—Change "[Davao], Mindanao" to "[Mountain], 261. Luzon.

262.thriambus Dvar.—Dominican Republic, Costa Rica, Colombia. tisseuilli Senevet.—Emended by Belkin, 1965, 24 to tisseuili. Transfer to p. 251 as synonym of mollis Dyar and Knab.

263. siamensis Barraud and Christophers.—Insert "; as var." after "&."

264. usquatissimus Dvar.—Costa Rica to Ecuador and British Guiana. Bram, 1967, 51 ( & \*; resurrected from synonymy). usquatus Dvar.—Mexico to Argentina. Bram, 1967, 49 (3\*).

# Subgenus MELANOCONION Theobald

266. ocossa Dyar and Knab.—Change "Surinam" to "British Guiana."

268. clarki Evans.—Argentina. Casal, 1963, 317 (3\*; resurrected from syn.).

269. eastor Dyar.—Trinidad.

271. implicatus Senevet and Abonnenc.—Transfer to p. 273 as synonym of nigrescens.

273. nigrescens (Theobald).—Casal, 1963, 317 (3\*).

implicatus Senevet and Abonnenc. clarki Evans.—Transfer to p. 268 as valid species.

oedipus Root.—García and Casal, 1965, 9 (P\*).

274. portesi Senevet and Abonnenc.—French Guiana, Trinidad, Brazil. Aitken and Galindo, 1966, 202 ( $\delta$ \*,  $\circ$ ; resurrected). cayennensis Floch and Abonnenc.

rabanicolus Floch and Abonnenc.—Change to rabanicola. 275.

portesi Cenevet and Abonnenc.—Transfer to p. 274 as valid species. 276. cayennensis Floch and Abonnenc.—Change "PIG" to "NE"; transfer to p. 274 as synonym of portesi.

ybarmis Dyar.—Trinidad. zeteki Dvar.—Trinidad.

# Subgenus MICROCULEX Theobald

278. Important reference: 1962, Coutinho and Forattini, 209-234. 279. **intermedius** Lane and Whitman.—Coutinho and Forattini, 1962, 217 ( &\*, \, \, \, P\*, L\*).

280. lanei Coutinho and Forattini.—Brazil.

1962. Studia ent. 5: 210 ( & \*, ♀, P\*, L\*). Type-loc: Bertioga (Itaguaré), Santos, São Paulo, Brazil (FH).

pleuristriatus Theobald.—Coutinho and Forattini, 1962, 223 (6\*, P\*, L\*).

**shopei** Forattini and Toda.—Brazil.

1966. Studia ent. 9: 507 (♂\*, ♀\*, P\*, L\*). Type-loc: Utinga, Belem, Para, Brazil (FH).

xenophobus Ronderos.—Venezuela.

1965. Physis 25: 249 (♂\*,♀\*, P\*, L\*). Type-loc: San Bonifacio, Sucre, Venezuela (INM).

# Subgenus AEDINUS Bourroul

281. americanus (Neveu-Lemaire).—Transfer to p. 283 as a nomen dubium. Change French Guiana to Brazil.

bisculatus Coquillett.—Trinidad, Antilles. Transfer to follow belemensis as a valid species with antillum-magnorum of authors as a synonym.

canaanensis Lane and Whitman.—Change "1934" to "1943."

cauchensis Floch and Abonnenc.—Change "Moyenne-Mana" to "Caux."

#### Subgenus CARROLLIA Lutz

282. bihaicolus Dyar and Nuñez Tovar.—Change to bihaicola.

#### Nomina Dubia

283. americanus (Neveu-Lemaire).—French Guiana. Fauran, 1961, 45 (taxon.).

#### Genus DEINOCERITES Theobald

285. **pseudes** Dyar and Knab.—Texas.

#### Fossil Species

286. loewi Giebel.—Place "Giebel" in parentheses; change "Culex" to "Toxorhynchites"; insert "Culex" after "A"; change "LU" to "NMC."

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Aken (Supplement II.) Change "onderzbek" to "onderzoek."
290. Arab, B. Al-Tikrity. 1963. Recent studies on the ecology of Anopheles apoci in Iraq. I. The geographical distribution of the breeding places and the morphology of Anopheles apoci pupae. Irak Bul.

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# Type Depositories

ANIC. Australian National Insect Collection, Canberra, Australia. BNI. Barnhard-Nocht-Instituts für Schiffs- und Tropenkrankheiten, Hamburg, Germany.

CMC. Department of Parasitology, Chungshan Medical College,

Canton.

DERM. Laboratorio de Entomologíade de la División de Endemias Rurales, Maracay, Venezuela.

329. NCID. National Institute of Communicable Diseases, Delhi, India. NMC. Naturwissenschaftlichen Museum der Coburger Landestiftung, Coburg, Germany. Australia (ANIC).

330. China (CMC, SMC), Germany (BNC, NMC), India (NICD), Vene-

zuela (DERM).

#### Index

336. cephasi.—Change to cephasi.

338. decannus.—Change to deccanus. 344. josephinae.—Change to josephineae.

karwari (Barraud).—Change to karwari.

347. miachaetessus.—Change to miachaetessa.

35 L pennai.—Change 151 to 150.

353. reptans Linnaeus. Change "Mon-mosquito" to "Non-mosquito."

354. scutipunctatus.—Change "Neivan" to "Neiva." shintiensis.—Change "Lein" to "Lien."

355. stokesi.—Change 196 to 197.

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# REPLACEMENT NAMES FOR PREOCCUPIED SPECIFIC NAMES IN DOLICHOPODIDAE

(DIPTERA)

Medetera postminima nomen novum for Medetera minima Van Duzee, 1925, Psyche 32: 180 (California, U.S.A.), not Medetera minima (as Medeterus minimus) De Meijere, 1916, Tijd. Ent. 59: 259 (Java); also recorded from Sumatra by Hollis, 1964, Beaufortia 10: 260.

Sympycnus pessimplex nomen novum for Sympycnus simplicipes De Meijere, 1916, Tijd. v. Ent. 59: 252 (Java), not Sympycnus simplicipes Becker, 1908, Mitteil. Zool. Mus. Berlin 4: 46 (Canary Islands, Europe). This species has recently been recorded from Sumatra by Hollis, 1964, Beaufortia 10: 269, under the De Meijere name.—George C. Steyskal, Entomology Research Division, ARS, U.S. Department of Agriculture, Washington. D.C. 20560.